

EPILOBIUM PARVIFLORUM SCHREB.
(ONAGRACEAE) ESTABLISHED IN
NORTH AMERICA

NANCY J. PURCELL

Epilobium parviflorum Schreb., a perennial herb native to Europe and Western Asia, has been found growing wild in several counties in Ontario, Canada. Plants were first collected near Toronto in August, 1973, by the author. Seven other localities have since been discovered among misidentified specimens in several Ontario herbaria.

This species at a glance resembles a short *Epilobium hirsutum* L., but the flowers and leaves are much smaller. *Epilobium parviflorum* has the common name of "Small-flowered Hairy Willow-herb," with petals averaging only six mm. in length, while petals of *E. hirsutum* are over ten mm. long. The leaves, ranging in length from two to eight cm., vary from subsessile to sessile, but never clasp the stem, as do those of *E. hirsutum*. Both the stem and leaves have the characteristic spreading-villous pubescence of *E. hirsutum*, although the density of hairs is quite variable and tends to decrease from the base upward into a glandular puberulent inflorescence. In autumn, the plant produces short, leafy rosettes for overwintering.

Several specimens have been misidentified as *E. strictum* Muhl., which also has villous pubescence on the leaves and stems. However, *E. parviflorum* can be easily distinguished from this species by its four-lobed rather than clavate stigma, and by its oblong-lanceolate rather than linear leaves.

The discovery of this species in Ontario is noteworthy when one realizes that it has previously been reported for North America only once. Although none of the manuals for North America nor any of the North American revisions of *Epilobium* (Trelease, 1891; Munz, 1965) have included *E. parviflorum* as a member of the flora, Trelease mentioned it as having been collected on ballast at Hoboken,

New Jersey, by the Hon. Addison Brown prior to 1891. Trelease apparently considered it to be adventive from the Old World and of no importance in the flora.

Epilobium parviflorum is a species of wet streambanks, fens, and marshes. The eight localities in Ontario are quite widespread, spanning a distance of approximately one hundred miles. This makes it difficult to speculate on how the plant arrived, and how long it has actually been here. Its habitat and distribution suggest the possibility it might be native, but this cannot be verified. Because of its distinctive morphological features, it is also difficult to explain why it has been previously overlooked. It is likely to be more widespread than even the present collections indicate. Hopefully, this discovery and report of its range will alert collectors, and even further locations might soon come to light. Nevertheless, *E. parviflorum* should definitely be included as a valid element of the Ontario flora at the present time.

SPECIMENS EXAMINED:

Ontario: GREY CO.: Craigleith, clay field, Sept. 1973, *A. Campbell* s.n. (TRT 180755, TRT 180756). Rocky Saugeen, in meadow by river, 23 Sept. 1969, *G. & P. H. DuBoulay* 4622 (TRT 173238, CAN 340984). SIMCOE CO.: Wye L., Midland, in mud bordering the third beaver pond in deciduous forest, 5 Aug. 1968, *D. Haddow* 296 (DAO 114323). Vespra Tp., Conc. XIII, Lot 14, 8 mi. W. of Barrie, wet cedar-tamarack swamp, 8 Aug. 1973, *L. Nyman* 3478 (Herbarium of A. A. Reznicek and R. S. W. Bobbette). Tiny Tp., Conc. XX, Lot 1, moist open edge of stream, 30 July 1969, *A. A. Reznicek* 948 (Herbarium of A. A. Reznicek and R. S. W. Bobbette). Flos Tp., Conc. IX, lot 25, Ontario Zoological Park, Wasaga Beach, moist ground along beaver pond in trough between wooded low dune ridges, 29 July 1973, *R. S. W. Bobbette* 3701 (TRT 180757). YORK CO.: Toronto Island, wildlife area—yard sector, 10 Aug. 1973, *V. Popov* 238 (Herbarium of Metropolitan Toronto Parks Department 976). Morningside Park, Toronto, 43°46', 79°10', wet streambank, 14 Aug. 1973, *N. Purcell* and *B. Wyatt* s.n. (TRT 180752, TRT 180753).

I would like to acknowledge the loan of specimens from the cited herbaria, and thank Dr. J. W. Grear for his helpful criticism of the manuscript.

LITERATURE CITED

- MUNZ, P. A. 1965. Onagraceae, in North American Flora 2(5): 198-225. New York Botanical Garden, New York.
- TRELEASE, W. 1891. A Revision of the American Species of *Epilobium* Occurring North of Mexico. Report of the Missouri Bot. Gard. 2: 67-117, 48 plates.

DEPARTMENT OF BOTANY
UNIVERSITY OF TORONTO
TORONTO, ONTARIO
CANADA